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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/537,188	06/02/2005	Niall Gormley	2713-1-015PCT/US	1232
23565	7590	10/31/2008		
KLAUBER & JACKSON 411 HACKENSACK AVENUE HACKENSACK, NJ 07601			EXAMINER SHAW, AMANDA MARIE	
			ART UNIT	PAPER NUMBER
			1634	
			MAIL DATE	DELIVERY MODE
			10/31/2008	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<p align="center"><b>Advisory Action</b> <b>Before the Filing of an Appeal Brief</b></p>	<p><b>Application No.</b> 10/537,188</p>	<p><b>Applicant(s)</b> GORMLEY ET AL.</p>	
	<p><b>Examiner</b> AMANDA SHAW</p>	<p><b>Art Unit</b> 1634</p>	

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 20 October 2008 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.  
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**NOTICE OF APPEAL**

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

**AMENDMENTS**

3. ☒ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
(a) ☒ They raise new issues that would require further consideration and/or search (see NOTE below);  
(b) ☐ They raise the issue of new matter (see NOTE below);  
(c) ☒ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
(d) ☒ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: See Continuation Sheet. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☒ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
The status of the claim(s) is (or will be) as follows:  
Claim(s) allowed: none.  
Claim(s) objected to: 28.  
Claim(s) rejected: 4 and 27-32.  
Claim(s) withdrawn from consideration: none.

**AFFIDAVIT OR OTHER EVIDENCE**

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

**REQUEST FOR RECONSIDERATION/OTHER**

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:  
See Continuation Sheet.  
12. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). \_\_\_\_\_.  
13. ☐ Other: \_\_\_\_\_.

/Carla Myers/  
Primary Examiner, Art Unit 1634

Continuation of 3. NOTE: The proposed amendment to claim 4 raises new issues because the scope of the claims has changed. Previously the claims were drawn to a method for "reducing sequencing errors by sequencing, recovering, and recovering a single stranded template nucleic acid". However claim 4 as amended is much broader because the claim is now drawn to a method for "sequencing a nucleic acid". Additionally the claims have been amended to recite an actual process step of "comparing" the first and second round of sequencing. This raises new issues under 35 USC 102 and/or 103 necessitating further search and consideration because the claims have not previously required an active process step of "comparing". Further the Applicants have presented a new claim (claim 33) which has not previously been searched. As such each of these amendments would necessitate a new search aimed at identifying the prior art most relevant to the claims as amended and consideration of that prior art with regard to whether it anticipates or renders obvious the claimed invention. As a result the proposed amendments do not place the application in better form for appeal by materially reducing or simplifying the issues for appeal.

Continuation of 11. does NOT place the application in condition for allowance because: With regard to the objection made over claim 28, the Applicants argument pertains to the claims as amended. This argument is considered moot in view of the non entry of the after final amendment.

With regard to the rejections made under 35 USC 112 2nd paragraph the Applicants arguments pertain to the claims as amended. These arguments are considered moot in view of the non entry of the after final amendment.

With regard to the rejections made under 35 USC 103 the Applicants arguments pertain both to the claims as amended and the pending claims. This argument that the combination of references does not teach comparing the data obtained from the first and second round of sequencing is considered moot in view of the non entry of the after final amendment because the claims did not previously recite an active process step of comparing.

The Applicants further argue that that there is no motivation to combine the teachings of Balasubramanian (as evidenced by Cheeseman) and Lackey. The argue that Lackey is directed to a method of cleaving phosphorothioate oligonucleotide to generate relatively cleavage resistant phosphorothioate oligonucleotides having properties that facilitate their separation and purification after synthesis. Therefore there is no need for sequencing a template because the sequence of the template is already known. Further they argue that Lackey does not teach resequencing any template. Next the Applicants state that in asserting this rejection the Examiner has engaged in impermissible hindsight analysis.

These arguments have been fully considered but are not persuasive. In the instant case Lackey is only being relied upon to teach what is missing in the methodology of Balasubramanian. Balasubramanian teaches a method for determining the sequence of a template nucleic acid by synthesizing a complementary nucleic acid strand. Balasubramanian does not teach a method comprising removing the complementary nucleic acid strand and performing a second round of sequencing. However Lackey teaches a method for synthesizing a complementary nucleic acid using a template sequence. Lackey specifically teaches that "In instances when a DNA primer/template with a single 3' ribonucleotide is used, cleavage at the ribonucleotide residue, followed by separation and purification of the oligonucleotide product, results in a fully regenerated and reusable primer/template (Col 13, lines 26-31). Therefore Lackey teaches a method comprising removing the complementary nucleic acid strand and clearly suggests that a second round of synthesis could be performed by reusing the primer/template". The fact that Lackey does not synthesize the complementary nucleic acid for the purpose of determining the sequence of the template is irrelevant because this is a 103 rejection and Balasubramanian teaches a method for determining the sequence of a template nucleic acid by synthesizing a complementary nucleic acid strand. Since both Balasubramanian and Lackey are drawn to methods for synthesizing a complementary nucleic acid using a template sequence, the argument that these two references are incompatible is misleading. In the instant case it would have been obvious to modify the method of Balasubramanian by removing the complementary strand and reusing the primer/template for resynthesizing the complementary strand for the benefit of verifying the results from the first sequencing reaction. Based on the teachings of Lackey one of skill in the art would have had a reasonable expectation of success in doing so. Since all of the claimed method steps were known in the art, one of skill could have combined these methods and the combination would have yielded predictable results. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

The Applicants further argue that the Barnes does not cure the the defects of Balasubramanian (as evidenced by Cheeseman) and Lackey because Barnes does not provide the missing teaching or suggestion of performing a first and second round of sequencing of the immobilized single stranded template nucleic acid. The Applicants arguments regarding the combination of Balasubramanian (as evidenced by Cheeseman) and Lackey have been fully addressed above. Accordingly the response to these arguments as set forth above applies equally to the present grounds of rejection.